

# Recent Progress in Health Education\*

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HEALTH education has always been inseparable from medicine and public health. Pasteur probably spent as much energy explaining his discoveries as in making them. Jenner, Lister, Chadwick, Simon, and Biggs were health educators perforce. Many successful physicians and public health men have spent much time in health education. Nevertheless, health education is among the more recently enucleated subdivisions of public health. It has only emerged in recent years as a specialized group of knowledges, skills, and technics.

Our knowledges, skills, and technics in health education are still incomplete and defective. This is due to: the youth of the work; changes in educational methods; lack of integration with related fields, such as education and psychology; preoccupation on the part of school and health administrators with other matters; dispersion of interest among many groups—teachers, physicians, nurses, health officers, and others. Nevertheless, encouraging advances are beginning to appear in this field. If properly nurtured, this infant may grow to become a leading scion of public health.

Health education is defined as "the sum of all experiences which favorably influence habits, attitudes, and knowl-

edge relating to individual, community, and racial health."<sup>1</sup> Its importance can no longer be overlooked. Smillie<sup>2</sup> emphasizes its special significance in the United States:

The average American will not coöperate with, nor support a public measure he does not thoroughly understand and approve in its principle and its detail. Thus, the health officer is compelled to inform the public fully concerning his plans and policies in order to secure the community's support for his program.

Wilbur<sup>3</sup> says:

We are grasping the fact that education is not a mere transfer of information from one mind to another, but that it is a manifold process by which a growing person learns how to operate under his own power and will. Particularly in the sphere of health we must learn by doing, and what we do must be done with understanding.

Health education is divided into 3 major fields, distinct to an unfortunate degree at this time:

1. Public Health Education, or Health Education of the Public, is that part of health education that takes place in home and community. This is the field that concerns health officers and executives of voluntary health agencies most directly.

2. School Health Education is that part of health education that takes place in the school or through efforts organized and conducted by school personnel.

3. Health Education of Professional

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Groups has to do with efforts conducted either by the professional school or the public health agency to increase the public health knowledge of public officials, physicians, medical students, nurses, teachers, sanitary officers, statisticians, bacteriologists, and other professional people.

#### ADVANCES IN HEALTH EDUCATION OF THE PUBLIC

In this field, we have usually failed to distinguish between health education and health information. It is one thing to inform people of health facts; another to have them modify their conduct on the basis of this information. The frequency with which they do so depends upon their education. Permanent improvement of health conduct is probably rare with present methods.

We have tended to confuse health publicity, propaganda, and service with health education. Overemphasis on them may actually impede true education. Too much or poorly directed propaganda often repels the intended convert. Providing health service such as school health examinations and diphtheria immunizations does not of itself lead people thenceforth to seek these same services on their own initiative.

Despite these faults, there have been several recent occurrences which indicate advancement.

1. "*We can Stamp out Syphilis*"—Probably the most outstanding recent event in this field is the admission of the word syphilis to the American drawing-room. For years, we have known more than enough to control syphilis. Methods used in the U. S. Army, in Japan, and in Sweden have proved effective. The traditional "hush attitude" of the public regarding venereal diseases has thwarted most efforts, and year after year syphilis has taken its unnecessary toll. It has in-

cluded the so-called "innocent victims" whose ignorance was far more significant than their innocence. Health departments and the American Social Hygiene Association have hammered for decades at this closed door. Their efforts were finally rewarded when a wise public health official made an issue of his exclusion from a broadcasting studio because his address mentioned syphilis. This precipitated a nationwide discussion leading to an opening of that door.

The press in many cities has now lifted its ban on this word. *The Readers Digest* abstracted an illuminating article on syphilis and offered reprints at cost. Since July, nearly 300,000 have been ordered.<sup>4</sup> A new talking picture on syphilis is meeting unprecedented success. Health departments are obtaining financial support for promising plans to control this scourge, the success of which will depend largely upon education.

2. *Reenlistment of the Medical Profession in Health Education*—The past few years have seen a renewed interest in health education by the medical profession. There never was a better time or place for health education than when the individual sought aid from his physician.

The American Medical Association through its Bureau of Health and Public Instruction conducted 31 dramatized broadcasts in 1935.<sup>5</sup> They have been arranged with unusual skill, and are to be repeated this year. Accepting commercial advertisers' estimates that only 1 per cent of the radio audience responds to offers of printed or other materials, these programs reached a maximum of over half a million persons. Several state and more county medical societies have arranged or coöperated with others in radio broadcasts.

The medical and health exhibits at

the larger expositions arranged by medical societies reflect this increased interest in health education by physicians. The Century of Progress and the Texas Centennial are examples. State and county medical societies and their auxiliaries in many places are conducting traveling exhibits.

Medical societies are organizing speakers' bureaus, offering assistance to voluntary public health agencies. There is more active participation by practicing physicians in local health department activities than formerly. The Detroit Plan is well known and is being emulated elsewhere. The Health Officer of Baltimore reports that in 1934 one-fourth of all diphtheria immunizations were done by private physicians.<sup>6</sup>

Several localities are following the plan established by the New Jersey Medical Society wherein each physician agrees to set aside 1 office hour, known as the public health hour, for immunizations, periodic health examinations, and the like.

Leaders in school health education were evidently impressed by the number and good counsel of physicians attending the 1935 Iowa City conference on school health education. One committee of this conference, composed largely of teachers, reported, "When county medical societies and other such organizations share the responsibility for a coöperative arrangement, more effective work is done than when the school takes the sole leadership."<sup>7</sup> This conference heard from Cabell County, W. Va., that the County Medical and County Dental Societies take the lead in a dual program of medical participation in the community health program.<sup>8</sup>

Encouraging and necessary as this advance is, it presents one danger—physicians may fall into the same errors committed by health officers and nurses, confusing information with education, overemphasizing propaganda and

service, and overlooking education. This is especially serious in the schools. The physician has an important responsibility in advising the teacher regarding *what* to teach. Without special training in educational methods, he has no place in the classroom trying to show the teacher *how* to teach.

3. *The Motion Picture in Health Education*—The motion picture is becoming a valuable aid in teaching. Films especially prepared for this purpose are increasing in number and improving in quality. Newly constructed city schools and auditoriums are usually equipped with projection facilities. Portable projectors for use in smaller schools are selling rapidly.

Nearly 10 years ago, Lee K. Frankel and I pleaded with one of the major film executives in Hollywood to produce a play dramatizing some of the outstanding events in preventive medicine. We left him unmoved. The past year has seen produced "Life of Louis Pasteur" and "The White Angel." These were not only box office successes, but have proved to be "experiences which favorably influence habits, attitudes, and knowledge relating to health." This was possible only because some degree of education had prepared the public to enjoy the drama and utilize the information presented. These plays have lifted horizons in health education. It never occurred to us that people would pay generously for being educated in health.

4. *Radio*—The radio is undoubtedly a potent force in education, since it is now found in three-fourths of all homes in the United States,<sup>9</sup> but its appropriate use in health education is still obscure. Turner<sup>10</sup> found only 1 person per 1,000 who heard 4 State Health Department broadcasts in a given week. Kirkpatrick<sup>11</sup> shows the radio to be a double-edged sword, since 25 per cent of his listeners reported resolving not

to buy the goods advertised because of disgust with the radio program.

Some progress has been made recently in solving these problems for health education. The American Medical Association broadcasts have been mentioned.<sup>5</sup> In Rochester, N. Y., a broadcast sponsored by the County Medical, Dental, and Tuberculosis and Health Societies resulted in the mailing of 45,820 copies of the talks in response to requests.<sup>12</sup> The success of the Chicago Health Department broadcasts seems generally accepted. For several years, the Los Angeles County Health Department has produced weekly radio dramas based on actual occurrences. Several commercially sponsored broadcasts have met with success and scientific approval.

It is not generally known that broadcasting stations and the Federal Communications Commission are sensitive to protests concerning false health advertising and quacks.<sup>13</sup>

Conclusions reached thus far seem to be that dramatization is important; that skilled speakers or actors are required; that the radio serves somewhat the same function as the billboard, making a temporary impression and perhaps opening the way for more detailed presentation through other means. It would seem wise for health agencies not to attempt broadcasting in the absence of expert assistance. Such attempts are often attended by the danger of ineffectiveness, and may actually exert a negative influence.

5. *Museums and Exhibits* — State health departments, medical societies, and voluntary health organizations are using exhibits more extensively. The Dresden Museum of Hygiene has made a lasting impression. Plans are already under way for health museums at the 1939 fairs in New York and San Francisco. This Association's Committee on a Museum of Hygiene is making

steady progress. It already distinguishes between a popular museum designed to draw crowds and a teaching museum which must aim at completeness. It points out that any museum must have a continuous and competent publicity and promotion program; it must be combined with a proper community program. The technic of presentation is more important to popularity than the selection of subject matter. Performance by the visitor of some act in connection with an exhibit aids in fixing it in his mind. Museum fatigue must be studied and avoided.<sup>14</sup>

Hygiene museums should be an attractive field for philanthropists who may be interested in public health. They have the advantages of uniqueness, usefulness in perpetuation, a tangible monument to the donor's memory.

6. *Publications* — Although medical men are little given to journalism, books, magazine and newspaper articles devoted to health subjects are increasing and improving. Medical men have been more attracted to authorship in recent years, and have in general acquitted themselves well. The American Medical Association is sponsoring a series of popular health books, the first of which, *Healthful Living*, by Diehl, has already appeared. The National Health Council has revised its series of health booklets.

7. *U. S. Public Health Service Office of Health Education* — Early this year, the Surgeon General announced the establishment in the U. S. Public Health Service of the Office of Health Education. Its purpose is to carry out experimental studies and assist those interested in health education. This is the first time the Service has dignified this sub-division of public health by the establishment of a separate office.

8. *Precision in the Choice of Methods* — There has long been a tendency to

judge our work on the basis of effort expended rather than results accomplished.<sup>15</sup> There is evidence from many sides that health educators are attempting to analyze, evaluate, and select their methods. Self-appraisal is becoming a watchword in health education. We are beginning to realize that a problem in health education requires technical skill.

The aim is: (1) to arouse curiosity, (2) to enlist sympathy, (3) to impart information, (4) to lead to action. This sequence can develop only when we have full command of appropriate methods and a thorough understanding of the audience. Audiences differ enormously. Individual and collective prejudices, superstitions, susceptibilities must be recognized by the health educator and dealt with much like the current of a river which can be gently diverted but not suddenly reversed. Galdston says:

Bread is the staff of life, and yet how different the breadstick of the Italian from the pancake loaf of the Armenian; though each is bread, still will the one be eschewed in preferment to the other—one's own bread. It is for us to be mindful of man's preferments in instruction as in bread.<sup>16</sup>

When we come to precise selection of methods, it is the ambition of those specializing in health education of the public to be able to answer promptly and specifically such questions as: Given adequate facilities, what is the best way:

To bring about an effective tuberculosis control program in a negro community?

To obtain a high proportion of smallpox vaccinations in a Polish community?

To obtain a high percentage of tuberculin tests and X-rays in a city school having a large proportion of "conscientious objectors"?

To persuade expectant mothers in a rural New England community to seek early medical care?

The answers to these questions may not include fundamental educational processes, although they could be made

to do so. They will, however, lead to clarification of our procedure, and will increase the value of health education as the term is now generally conceived.

Such questions present many facets, and each must be studied if we are to find an answer which will avoid the debacle of "talking health in Polish to Greek immigrants."<sup>17</sup> It is not enough to decide what to do in health education of the public. We must carefully study the complexities of the group in which it is to be done, select the tools with which to do it, and use these tools with skill based upon experience.

A method of identifying and measuring health attitudes in different groups has been suggested<sup>18</sup> and is being tried. In Detroit, "health guilds" are organized by the Health Department, each recruited from an existing community interest.<sup>19</sup> Letters and post-cards are being tried to reduce the number of unproductive nurse visits. One letter is written in several ways, and a close score kept on the effectiveness of each. It was found that an unstamped return envelope addressed to the health officer and marked "personal" elicited more replies than a business reply card on which the postage was prepaid.

There is much better discrimination as to what to teach than formerly. We are learning to distinguish between the "Grade A" and "Grade B" facts referred to by Armstrong<sup>20</sup> and to disseminate them accordingly. Health education is emerging from the "whoop-la era" to one of sustained serious effort. The spectacular pageants and parades of a few years ago are being abandoned in favor of steady, continuous pressure by sounder methods.<sup>21</sup>

#### ADVANCES IN SCHOOL HEALTH EDUCATION

School health education advances may be less familiar to this group.

They are profound, and significant to other forms of health education. Methods pursued by teachers will prove helpful in health education of the public. As our methods for health education of the public become more refined, they will follow more closely the fundamental educational principles developed in the schools.

These advances forecast the dawn of a new day for the health officer. He will have a future generation to deal with which is already familiar with the health problems of the individual and the community.

For years we have bombarded our allies, the school teachers, with criticism, much of it destructive. We have carried the unquestioned authority accorded us in the hospital into the school. We have complained of content of health courses without offering a better substitute. We have scoffed at the teacher's lack of health knowledge without serious effort to inform her. We have complained of lack of results. At last, teachers have taken up a careful analysis of their own situation. And, this is probably less in self-defense than in enthusiasm for a great cause which we have poorly espoused.

1. *Fundamentals Generally Accepted*  
—It is pretty well agreed that

... the problem in education today is no longer merely that of learning a few specific skills, habits, and attitudes which are for a specific task; it is, in addition, the problem of securing the ability and the desire to change continually and adapt oneself to new discoveries. Adaptability is most essential if one is to meet happily and successfully the world's changing complexity.<sup>22</sup>

Health authorities should meet their responsibility of advising what to teach. The teacher, on the other hand, should decide when and how to teach.<sup>23</sup>

2. *Integration of School Health and of School and Community Health*—Health is not an object which can be

permanently possessed or not possessed, which can be measured accurately, which can be invariably changed at will. It is a way of life. It is influenced by many factors, not all of them controllable, few of them static.

The present school health education program has developed from the gradual converging of three separate streams of thought: the old hygiene instruction largely instigated by the W.C.T.U.; the school health service program introducing the physician and nurse into the school system; and the physical education program. A fourth stream, mental hygiene, is now making itself felt. Influencing the school from another direction has been the development of the community public health program. The time has come to integrate these and all other forces which influence the health of the school child.

Not for much longer will school health be a distinct activity separated from all other public health work. Progress has been made in correlating school health work with that of the community, and in correlating it within the school.

Community health service is inseparably linked with health education. The school has the responsibility of being the connecting link between the various agencies contributing to health and protection of the school child. Teachers, nurses, parents, representatives of the health department, personal physicians, and the children themselves must work together in enriching and planning the curricula.<sup>24</sup>

Kalamazoo has made progress in this direction after many months were spent on integration. So many agencies of the community and departments within the school system were found to be involved in health matters that a "chairman of health-contributing agencies" was appointed. This chairman arranged series of meetings and con-

sultations, and a program of procedure was unanimously agreed upon and published.<sup>25</sup>

Shaw has said:

Health lends itself well to integration with other subjects because of its close relation to the whole of life. There is scarcely any subject which children might select for study or investigation which has not some relation to health.<sup>26</sup>

3. *Curriculum Building*—Since health is so vital a factor permeating the daily life of the school child, teachers are concluding that health teaching need not necessarily be confined to formal class periods devoted to hygiene, physiology, or similar subjects. The modern curriculum is built around units of work. These units in turn are based upon a careful analysis of the demands placed upon the good citizen by his present environment. Such demands invariably include health problems.

Virginia has recently revised its whole public school curriculum on this basis.

Another example is in Cattaraugus County.<sup>27</sup> Here, committees of teachers were organized who met regularly and established desirable objectives. These were established only after repeated consultations with school nurses, health officers, private physicians, and others who could bring in authoritative advice on local health problems. Local morbidity and mortality rates were studied and explained by health officers and nurses. Local customs, prejudices, and habits were given careful consideration. The remedy for each of these problems was sought from the health experts. Then the committee started to devise ways of teaching the habits, attitudes, and conduct which would, in the opinion of the experts, provide the needed remedy. Programs were constructed and experimented with. Those successful were disseminated to other teachers.

A good example of this method is a

project based on growth and nutrition in a country school. Several young chickens were donated. Pens were constructed, and feeding and weighing were done by the children. The chickens were divided into two groups, and the controls were given milk and cod liver oil as a part of their ration. At the end of a few weeks, one youngster, a confirmed coffee drinker, remarked that the milk-fed chickens were larger than the others. The milk-fed chickens weighed 13 per cent more than their brothers. The teacher believed the experiment was proving its worth.<sup>28</sup> The project included elements of biology, physiology, dietetics, arithmetic, craftsmanship, and others.

Turner has developed an excellent teaching unit of this kind on elementary bacteriology.<sup>29</sup> It requires no extensive laboratory apparatus. It introduces the child to the microscopic world in general, taking up pathogenic bacteria only after a proper background has been established. He says:

If a child had never been outside a city, his first introduction to the plants of the open country should be to the flowers, trees, and grasses—not to poison ivy!<sup>30</sup>

History can be taught as a record of man's striving for and achieving a better life. The study of civics is filled with health opportunities. Reading and art study offer a rich health field. The physician's examination, contact with the nurse, ventilation, lighting, hand-washing facilities, and many commonplaces in the child's natural surroundings furnish excellent material for health teaching. Often, defects of the school plant are remedied when children call them to parents' attention.

4. *School Nurse Relationships* — Never before has the nurse been so important a factor in school health education. Heretofore, there was no clear understanding among all concerned as to what the nurse was to do.

Today, the well qualified school nurse makes herself more valuable by developing a closer relationship with the teacher, sharing information about the child, aiding a better understanding of the child through her contribution of professional knowledge and by a careful study of her well kept records. She is especially important in the health education of the parents, interpreting the teacher and the school physician to them.

No longer is the qualified school nurse remaining aloof from the educational program. She is becoming an actively functioning member of the faculty, developing the case study method of analyzing behavior, making intelligent use of community health resources by acting as a liaison between them and the school, contributing to curriculum construction and to methods and materials of instruction.<sup>31</sup> Without special training, she is more inclined to leave the actual teaching to teachers. Much of the modern program of integration and curriculum building in health depends upon the nurse.

5. *Attempts at Evaluation*—As in the general public health field, more scrutiny is being given to values and results. Publication of the *Pathway to Correction* by the American Child Health Association served to call attention to the fact that school health service had not accomplished its function by the mere detection of physical defects. Further studies are now under way to analyze and apply the results of this inquiry.

Better measures of health attitudes and health behavior are being sought.<sup>32</sup> One school health director believes that many physical defects, at least in the higher economic groups, would be found and corrected without the school examination and follow-up.<sup>33</sup> Wood cautions that these attempts at evaluation should not result in abandonment of

old methods until we have a better substitute.<sup>34</sup>

6. *Improved School Environment*—When children are required by law to go to school, a serious responsibility falls upon the board of education for their health protection. Considerable advance has been made in proper seating, lighting, and ventilation. The roller towel and common drinking cup are rare sights today, even in 1 room rural schools. Handwashing facilities, however, are still inadequate in many places.

Distinct advances have been made in providing safe drinking water, rest periods, and a well conducted school lunch period.

Attention is now being given to overstimulation, both in the school and in the home; school report cards are being scrutinized as possible factors contributing to emotional strain; the 100 per cent attendance pressure is being viewed from the health standpoint.<sup>35</sup>

7. *Teacher Health*—This is gradually receiving the attention it deserves. Increased recognition of the effect of poor health upon the teacher's emotional state, and renewed attention to the communicability of tuberculosis have tended to make superintendents and school boards insist upon periodic physical examinations for teachers. Training schools are selecting future teachers with more regard to their mental and physical health.

8. *Consultation Services*—There has long been an urgent need for accessible consultation facilities where teachers could obtain sound advice and prompt assistance with their health problems. This need is reflected in the active correspondence of such agencies as the former American Child Health Association, the National Tuberculosis Association, the School Health Bureau of the Metropolitan Life Insurance Company. The latter receives nearly 50,000 letters a year from school administra-



tors and teachers. In the first 6 months of its existence, the School Health Education Service of the Joint Committee of the American Medical Association and the National Education Association received nearly 5,000 letters from school administrators and teachers.<sup>36</sup> The Federal Office of Education and various state departments of education, notably New York, are beginning to respond to this demand with encouraging results. They should eventually care for most, if not all, of the consultation services now provided by voluntary agencies.

*9. Tuberculosis Case Finding in Schools*—The campaign of the National Tuberculosis Association for tuberculin testing, follow-up, and X-ray of positives in schools has done much to stimulate the entire school health movement. Some schools and teachers have recently encountered modern school health for the first time through the activity of the local tuberculosis association. It should be remembered that a high percentage of tuberculin testing is not our ultimate goal. The real goal is to educate concerning health so that tuberculosis will be reduced. Tuberculin testing is an aid to achieving this real goal.

#### HEALTH EDUCATION OF PROFESSIONAL GROUPS

Progress in this third branch of the field of health education is better known to this group, and will not be detailed. Availability of federal funds for the training of public health personnel has brought about a new era so suddenly that we hardly appreciate its significance. Training of personnel is the best remedy to cure the old vicious circle. This circle comprises inadequate public health funds, incompetent public health personnel, lack of results, and lack of appreciation leading to still less adequate funds, and, perforce, less

competent personnel. There are other points to attack this vicious circle, such as political reform and improved legislation. But none will be more likely to reverse the vicious into the benign circle than well trained, carefully selected, skillful, competent public health personnel.

In-service training of teachers, physicians, and nurses has developed rapidly in recent years. One of the most extensive programs of in-service training is the work of the Kellogg Foundation.<sup>37</sup>

#### CONCLUSIONS

It is evident that health education of the public, in the schools, and in professional groups, is receiving increased emphasis. This is shown by recent advances in this field along many fronts. The U. S. Public Health Service, American Medical Association, National Education Association, National Tuberculosis Association, motion picture industry, various foundations, and many schools and health agencies have made recent substantial progress. The American Public Health Association is contributing to this progress in practically all sections and in several committees. If we are to continue leadership in this field, we must give it even more attention, losing no opportunities to encourage research, assist members to avoid past mistakes, and facilitate interchange of experience in related fields. Especially unfortunate in the past has been the seclusion from each other of physicians and school administrators, teachers and nurses, public health officers and educators, and even school physicians and health officers. All have much in common in the field of health education, a field which promises to become at once the best defender and best champion of public health.

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